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September 26, 2017

VIA ELECTRONIC FILING

Ms. Jocelyn Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Dr., Suite 100
Columbia, SC 29210

Re: Duke Energy Carolinas, LLC's Petition for Approval to Revise Outdoor Lighting Service Schedule OL, Street and Public Lighting Service Schedule PL, Governmental Lighting Service Schedule GL, and Floodlighting Service Schedule FL

Dear Ms. Boyd:

Duke Energy Carolinas, LLC ("DEC" or the "Company") requests Public Service Commission of South Carolina ("Commission") approval to revise its Outdoor Lighting Service Schedule OL, Street and Public Lighting Service Schedule PL, Governmental Lighting Service Schedule GL, and Floodlighting Service Schedule FL (attached herein). The Company is requesting to revise these schedules to:

- 1) Close metal halide technology for new installations on Schedules OL, PL, GL, and FL;
- 2) Remove the transition fee associated with upgrading from metal halide to Light Emitting Diode ("LED") technology upon failure of the metal halide fixture or ballast on Schedules OL, PL, GL, and FL;
- 3) Add two new floodlight LEDs to Schedule FL; and
- 4) Remove a provision pertaining to a monitoring service that is not being used by the Company or any customer on Schedules OL, PL, GL, and FL.

Close Metal Halide Technology for New Installations

The Energy Independence and Security Act of 2007 ("Act") requires that ballasts installed in metal halide fixtures meet higher energy efficiency standards, which have been gradually phased-in over time. As of February 2017, for example, certain metal halide lamps between specific rated wattages cannot contain a probe-start metal halide ballast.¹ Since the approval of the Act, fixture manufacturers have complied with these higher standards, but now recognize that LED fixtures are a better long-term option since they are more energy efficient, offer a similar quality

¹10 C.F.R. §431.326(d)



of light, and are often preferred by customers. Therefore, with the advancement of LED technology and the market moving towards higher energy efficiency standards, fixture manufacturers have decided to no longer support the production of new metal halide fixtures and ballasts.

The Company is seeking approval to close metal halide technology for new installations on all of its outdoor lighting tariffs including Schedules OL, PL, GL, and FL. Customers may continue to utilize the current installed metal halide fixtures until the fixture or the ballast fails. At that time, the standard metal halide fixture will be replaced with a corresponding LED fixture at the applicable monthly rate. For an existing nonstandard or decorative metal halide fixture that fails or if the ballast fails, the Company is requesting to replace the nonstandard or decorative metal halide fixture with a comparable high pressure sodium fixture under an applicable monthly rate, if a corresponding LED fixture is not available or if the cost of such LED fixture is exceedingly high.

Remove Transition Fee Associated with Metal Halide Fixture or Ballast Failure

In 2016, the Commission approved the Company's requests to include a transition fee for customers who voluntarily chose to upgrade standard and decorative outdoor lighting fixtures from metal halide or high pressure sodium to LED.² The purpose of the transition fee is to address the remaining book value for early retirement of assets. Given that manufacturers will no longer produce metal halide fixtures and ballasts, the Company believes that waiving the transition fee when the fixture or ballast has failed is appropriate. To address the book value concerns previously discussed with the Commission, however, the Company requests to retain the transition fee for customers who voluntarily upgrade from metal halide when the fixture or the ballast has not failed. In addition, retention of the transition fee for high pressure sodium fixtures remains valid. Accordingly, the Company is requesting revisions to Schedules OL, PL, GL, and FL to remove the transition fee associated with replacing metal halide fixtures when the fixture or ballast fails.

Add New LED Floodlights

On Schedule FL, the Company proposes to add two (2) new LED floodlights: LED 130w and LED 260w. Over the past few years, customers have requested LED floodlights as an energy efficient alternative to high pressure sodium and metal halide floodlights. The Company believes that the technology associated with

² *Order Approving Revised Outdoor Lighting Schedules*, February 10, 2016, PSCSC Docket No. 2015-422-E, Order No. 2016-93.

directional-type floodlighting is mature enough to incorporate as a standard offering. The Company is proposing the following rates:

Style	Existing Pole	New Pole	New Pole Served Underground
LED Floodlight 130w	\$16.75	\$25.50	\$30.22
LED Floodlight 260w	\$33.44	\$42.19	\$46.91

The LED 130w floodlight is comparable to the 27,500 lumen and 50,000 lumen high pressure sodium floodlight fixtures the Company currently offers on Schedule FL. Also, the LED 130w is comparable to and will serve as a replacement for the 40,000 lumen metal halide floodlight fixture on Schedule FL as the fixture or the ballast fails. The pricing for the LED 130w floodlight is slightly lower than the 40,000 lumen metal halide floodlight, however is higher for the 27,500 lumen and 50,000 lumen high pressure sodium fixtures which have lower installed fixture costs compared to the LED 130w floodlight fixture.

The LED 260w floodlight is a new high wattage option for customers in South Carolina and does not replace a current option on Schedule FL. The Company is not seeking to add a lower wattage LED 50w floodlight to its rate Schedule FL at this time, as compared to Duke Energy Progress, Inc. Though the Company offers a 16,000 lumen high pressure sodium floodlight, there are other non-floodlight LED products on the Company's other rate schedules that provide similar light output.

Remove Monitoring Option

In Schedules OL, PL, GL, and FL, the Company offers an option to install a monitoring device which automatically notifies the Company if a fixture has failed. The monthly charge for this option is \$2.42 per monitoring device. Currently, there are no customers that utilize this option on any of the Company's outdoor lighting rate schedules. With the advancement of LED technology, manufacturers are developing more sophisticated lighting control technology. The Company is evaluating this newer control technology and believes that the monitoring option that was previously approved no longer meets the demands of customers. Therefore, the Company is requesting Commission approval to remove this offering from Schedules OL, PL, GL, and FL.



Conclusion

Enclosed is a copy of the revised Outdoor Lighting Service Schedule OL, Street and Public Lighting Service Schedule PL, Governmental Lighting Service Schedule GL, and Floodlighting Service Schedule FL in Attachment A. This request continues the Company's emphasis on promoting environmentally prudent and energy efficient lighting sources. DEC respectfully requests that the Commission approve this Petition and that these revised tariffs become effective upon approval.

Thank you for your attention to this matter. If you have any questions, please let me know.

Yours truly,

Frank R. Ellerbe, III

FRE:tch

Enclosures

cc: Jeffrey M. Nelson, ORS, Chief Counsel & Director of Legal Services (via email)
Heather Shirley Smith, Deputy General Counsel (via email)
Rebecca J. Dulin, Senior Counsel (via email)

SCHEDULE OL (SC)
OUTDOOR LIGHTING SERVICEAVAILABILITY (South Carolina Only)

Available to the individual customer for lighting of private outdoor areas at locations on the Company's distribution system. Service under this Schedule may be withheld or discontinued at the option of the Company.

RATE:(A) Bracket-Mounted Luminaires

All-night outdoor lighting service using Company standard equipment mounted on standard poles:

<u>Lamp Rating</u>			<u>Per Month Per Luminaire*</u>		
			<u>Existing Pole (1)</u>	<u>New Pole</u>	<u>New Pole Served</u>
<u>Lumens</u>	<u>kWh Per</u>	<u>Style</u>	<u>*Minus 0.3754</u>	<u>* Minus 0.3754</u>	<u>* Minus 0.3754</u>
	<u>Month</u>		<u>cents/kWh</u>	<u>cents/kWh</u>	<u>cents/kWh</u>
High Pressure Sodium Vapor					
4,000	21	Post Top (2)	NA	NA	\$ 15.24
9,500	47	Suburban (3)	\$ 8.80	\$ 15.44	\$ 20.15
9,500	47	Urban	\$ 10.14	\$ 16.78	\$ 21.49
13,000	56	Suburban (6) (in suitable mercury fixture)	\$ 9.60	NA	NA
16,000	70	Urban	\$ 10.62	\$ 17.25	\$ 21.97
27,500	104	Urban	\$ 12.49	\$ 19.12	\$ 23.83
50,000	156	Urban	\$ 14.84	\$ 21.48	\$ 26.19
Metal Halide**					
9,000	43	Urban	\$ 11.86	\$ 18.52	\$ 23.26
40,000	155	Urban	\$ 18.21	\$ 24.86	\$ 29.56
78,000	295	Area	\$ 43.20	\$ 51.92	\$ 56.63
110,000	395	Area (9)	\$ 58.59	\$ 67.33	\$ 72.04
Mercury Vapor*** (Closed to new installation)					
4,000	41	Post Top (2)	\$ 7.49 (4)	NA	\$15.34(8)
4,000	41	Suburban (5)	\$ 5.86	NA	NA
4,000	41	Post Top (7)	\$ 9.64	NA	NA
4,000	41	Post Top (7)	\$ 12.50	NA	NA
7,500	75	Post Top (7)	\$ 11.97	NA	NA
7,500	75	Suburban (3)	\$ 7.68	\$ 14.32	\$ 19.02
7,500	75	Urban (8)	\$ 8.85	\$ 15.48	\$ 20.19
20,000	152	Urban (8)	\$ 11.74	\$ 18.37	\$ 23.09
Light Emitting Diode (10)					
4,500	18	Area 50 watts	\$10.03	\$16.66	\$21.36
6,500	25	Area 70 watts	\$10.19	\$16.82	\$21.52
9,500	40	Area 110 watts	\$12.90	\$19.53	\$24.23
12,500	54	Area 150 watts	\$14.59	\$21.22	\$25.92
18,500	79	Area 220 watts	\$17.38	\$24.01	\$28.71
24,000	101	Area 280 watts	\$20.09	\$26.72	\$31.42
43,000	151	Area 420 watts	\$44.53	\$51.16	\$55.86

- (1) The "Existing Pole" rate is applicable to installations, including pole, installed by November 18, 1991. After November 18, 1991, the "Existing Pole" rate is available only for luminaires attached to poles which are not installed solely to support the luminaire.
- (2) Luminaire is not available for the lighting of streets, roadways, and other vehicle thoroughfares.
- (3) Closed to new installations on or after July 1, 2005.
- (4) Closed to new installations on or after November 18, 1991.
- (5) Closed to new installations on or after January 1, 1973.
- (6) Closed to new installations on or after October 8, 1985.
- (7) Closed to new installations on or after January 17, 1975.
- (8) Closed to new contracts on or after October 1, 2007 for luminaires installed before January 1, 2008.
- (9) Closed to new installations after February 1, 2010.

SCHEDULE OL (SC)
OUTDOOR LIGHTING SERVICE

- (10) Light Emitting Diode (LED) luminaires are available for new installations after June 18, 2014, as replacements for failed mercury vapor luminaires and for customer requested replacements of existing mercury vapor luminaires, provided the fixture will accommodate an LED luminaire as a replacement. LED luminaires are not available as replacements for High Pressure Sodium Vapor or Metal Halide luminaires.

**** Metal halide luminaires are no longer available for new installations. Upon failure of the luminaire or ballast, the luminaire will be replaced at no charge with a similar style LED luminaire and the monthly rate for the new luminaire will apply. If the existing metal halide luminaire is nonstandard or decorative and a comparable LED luminaire is not available, the Company will replace it at no charge with another available luminaire and the monthly rate for the new luminaire will apply. Customer requested replacements of metal halide luminaires prior to failure are subject to a transition fee as provided for under paragraph D below.**

***** Mercury vapor luminaires are no longer available and will not be repaired if they fail. Upon failure, the Company will convert any standard luminaire to an LED luminaire of similar size and lumen output. If the existing mercury vapor fixture is nonstandard and a comparable LED luminaire is not available, the Company will replace it with another available luminaire.**

(B) Other Luminaires

Decorative and non-standard luminaires can be installed on request, at the Company's option, at the rate in (A) above plus an extra monthly charge equal to 1.7% of the estimated difference in cost installed between the luminaire and structure requested and the equivalent luminaire and wood pole in (A) above.

(C) Underground Charges

- (1) Additional monthly charge for the underground conductor system:
\$.07 for each increment of 10 feet, or less, over 150 feet per pole.
- (2) When the installation requires the cutting and replacing of pavement, 1.7% of the estimated cost of this cutting and replacing of pavement will be added to the charges above.
- (3) When an installation is in an area served by a concrete-encased duct system, additional charges stated above will not apply and, instead, the additional monthly charge will be 1.7% of the estimated cost of the underground conductor system.
- (4) An underground conductor system, up to 150 feet per pole, can be installed to an existing pole under the "Existing Pole" rate in (A) for an additional monthly charge of \$4.70 per pole. For installations over 150 feet per pole, the charges under (C) (1) will apply in addition to the \$4.70 charge.

(D) Transition Fees for Change out of High Pressure Sodium and Metal Halide Luminaires to LEDs

Upon customer request, the Company will replace a High Pressure Sodium or Metal Halide Luminaire with an LED luminaire upon payment to the Company, in advance, a transition fee as follows:

- (1) For luminaires billed under paragraph (A) above, the fee shall be \$64.00 for each such luminaire replaced.
- (2) For luminaires billed under paragraph (B) above, the fee shall be calculated on a per luminaire basis as the loss due to early retirement of the luminaire being replaced.
- (3) Customers will not be charged a transition fee for metal halide luminaires that are replaced due to failure of the ballast or luminaire.

RIDERS

The following Riders are applicable to service supplied under this schedule. The currently approved cent/kWh rider increment or decrement must be added to the rates shown above to determine the monthly bill.

Leaf No. 62 Energy Efficiency Rider

ADJUSTMENTS FOR FUEL, VARIABLE ENVIRONMENTAL, AVOIDED CAPACITY AND DISTRIBUTED ENERGY RESOURCE PROGRAM COSTS

The cost of fuel, the variable environmental cost, avoided capacity cost of the Public Utilities Regulatory Policies Act of 1978 ("PURPA") purchased power, and Distributed Energy Resource Program ("DERP") cost is incorporated as a part of, and will apply to all service supplied under, this Schedule.

EXPLANATORY NOTES AND OTHER CHARGES

South Carolina Fifty-First Revised Leaf No. 32
Effective for bills rendered on and after the first billing cycle in _____
PSCSC Docket No. , Order No. _____

SCHEDULE OL (SC)
OUTDOOR LIGHTING SERVICE

- (1) Lamps will burn from approximately one half-hour after sunset until approximately one half-hour before sunrise. The Company will readily replace burned-out lamps and otherwise maintain the luminaires during regular daytime working hours following notification by the Customer.
- (2) Luminaires will be installed only on Company-owned poles, and all facilities necessary for service under this Schedule, including fixtures, lamps, controls, poles, hardware, transformers, conductors, and other appurtenances shall be owned and maintained by the Company.
- (3) Equipment (such as disconnecting switches) not supplied by the Company as standard is not available under this Schedule, and shall not be installed by the Customer.
- (4) This Schedule is not available for seasonal or other part-time operation of outdoor luminaires.
- (5) Color-improved lamps installed prior to October 1, 2007 are supplied for an extra charge of \$1.05 per lamp per month. For luminaires installed prior to October 1, 2007 there will be no additional charge for color-improved lamps installed as replacements for clear mercury vapor luminaires, nor for color improved lamps installed in new luminaires on or after October 1, 2007.
- (6) Service using overhead conductors is not available in any area designated by the Company as underground distribution area, nor in any area, location or premises being served from an underground source.
- (7) All luminaires except the 110,000 lumen metal halide fixture will be installed on standard 30-foot, class 6 size wood poles. The 110,000 lumen metal halide fixture will be installed on standard 40-foot, class 5 wood poles. On Customer request, and for an additional charge, all luminaires, except the 110,000 lumen metal halide fixture can be installed on wood poles larger than the standard 30-foot, class 6 size, if the location permits the use of bucket-type equipment for mounting and servicing: 35-foot, class 5 pole for 25 cents per month, or 40-foot, class 5 pole for 35 cents per month. Other size poles, or structures other than standard wood poles, can be installed for an extra monthly charge equal to 1.7% of the estimated installed cost difference between the requested pole or structure, and the standard wood pole, but not less than \$5.35 per month per pole or structure. Brackets longer than the standard length of 30 inches, but not longer than 20 feet, can be installed where use of bucket-type equipment is permitted for an extra charge of 70 cents per month per bracket.
- (8) Where two or more luminaires were installed for service before November 18, 1991 on the same pole or other structure, the applicable monthly charges for each luminaire other than the first will be reduced \$1.75.
- (9) Luminaire locations shall be designated by the Customer and where only an extension of secondary facilities is required from the nearest distribution source, the rate per luminaire in (A) above shall apply. When the number of required poles exceeds the number of luminaires requested, a monthly charge not less than \$1.75 per standard wood pole shall be made for luminaires installed for service before November 18, 1991. A monthly charge of \$6.63 per standard wood pole shall be made for luminaires installed for service after November 18, 1991. When any installation requires an extension of primary facilities solely to serve the luminaires, an additional monthly charge equal to 1.7% of the estimated cost of the primary extension shall be made. Should any installation require guying of secondary facilities, a charge of 60 cents per month per guy shall be made.
- (10) "Suburban" luminaires are defined as standard NEMA-style fixtures with refractors and vertical-burning lamps. "Urban" luminaires are defined as "cobra-style" fixtures with enclosed refractive or flat lenses and horizontal-burning lamps.

SALES TAX AND MUNICIPAL FEES

Any applicable sales tax, municipal service agreement fee, business license fee or other fee assessed by or remitted to a state or local governmental authority will be added to the charges determined above.

PAYMENT

Bills under this Schedule are due and payable on the date of the bill at the office of the Company. Bills are past due and delinquent on the fifteenth day after the date of the bill. If any bill is not so paid, the Company has the right to suspend service. In addition, all bills not paid by the twenty-fifth day after the date of the bill shall be subject to a one and one-half percent (1 1/2%) late payment charge on the unpaid amount. This late payment charge shall be rendered on the following month's bill and it shall become part of, and be due and payable with, the bill on which it is rendered.

CONTRACT PERIOD

The original term of contract may be from a minimum of one (1) year to a maximum of ten (10) years. Contracts will continue after the original term until terminated by either party on thirty days' written notice. The Customer may amend or terminate the Agreement before the expiration of the initial Contract Period by paying to the Company a sum of money equal to 40% of the monthly bills which otherwise would have been rendered for the remaining term of the initial Contract Period, less the monthly bills for the initial term of contract of any successor customer who has applied for lighting service at the premises prior to the effective date of the contract amendment or termination, provided, however, this amount shall not be less than zero. The Company may require a deposit not to exceed 40% of the revenue for the original term. The deposit will be returned at the end of the original term, provided the Customer has met all provisions of the contract. Minimum term of contract for specific situations shall be:

SCHEDULE OL (SC)
OUTDOOR LIGHTING SERVICE

- (a) One (1) year for all luminaires installed at a residence and designated by the Company as standard, post top and bracket-mounted on standard poles.
- (b) Three (3) years for all luminaires not installed at a residence and designated by the Company as standard, post top and bracket-mounted on standard poles.
- (c) Ten (10) years for all luminaires designated by the Company as decorative or nonstandard, and for all standard luminaires mounted on supports other than standard wood poles, for non-standard luminaires or other non-standard supports, and for primary extensions solely serving the luminaires.

SCHEDULE PL (SC)
STREET AND PUBLIC LIGHTING SERVICEAVAILABILITY (South Carolina Only)

This schedule is closed and not available for service to new installations after February 1, 2010 but remains in effect for continually effective agreements under this schedule. Available for the purpose of lighting streets, highways, parks and other public places for Municipal, County State, and Federal Governments, at locations inside or outside municipal limits on the Company's distribution system. This Schedule is not available for service to non-governmental entities.

RATE:(A) Bracket-Mounted Luminaires

All-night street lighting service using overhead conductors and Company standard equipment mounted on standard wood poles:

<u>Lamp Rating</u>			<u>Per Month Per Luminaire*</u>	
<u>Lumens</u>	<u>kWh Per Month</u>	<u>Style</u>	<u>Inside</u> <u>Municipal Limits</u> * Minus 0.3754 cents/kWh	<u>Outside</u> <u>Municipal Limits</u> * Minus 0.3754 cents/kWh
High Pressure Sodium Vapor				
9,500	47	Suburban (1)	\$ 9.62	\$ 10.18
9,500	47	Urban	\$ 11.23	\$ 11.79
13,000	56	Suburban (2) (in suitable mercury fixture)	\$ 10.67	\$ 11.23
16,000	70	Urban	\$ 11.89	\$ 12.44
27,500	104	Urban	\$ 14.08	\$ 14.64
38,000	136	Urban (3) (in suitable mercury fixture)	\$ 15.26	\$ 15.83
50,000	156	Urban	\$ 17.00	\$ 17.57
140,000	391	Urban (installed on 55-foot wood pole)	\$ 35.12	\$ 35.67
Metal Halide**				
40,000	155	Urban	\$ 21.06	\$ 21.63
Mercury Vapor ***				
4,000	41	Suburban (1)	\$ 6.16	NA
4,000	41	Post Top (4)	\$ 10.71	\$ 11.22
4,000	41	Bracket (5)	NA	\$ 6.71
7,500	75	Post Top (4)	\$ 13.54	\$ 14.10
7,500	75	Suburban (1)	\$ 8.35	\$ 8.91
7,500	75	Urban (6)	\$ 9.75	\$ 10.31
20,000	152	Urban (6)	\$ 13.27	\$ 13.83
55,000	393	Urban (6)	\$ 26.37	\$ 26.94
Light Emitting Diode (7)			<u>Inside or Outside Municipal Limits</u>	
4,500	18	Area 50 watts	\$10.03	
6,500	25	Area 70 watts	\$10.19	
9,500	40	Area 110 watts	\$12.90	
12,500	54	Area 150 watts	\$14.59	
18,500	79	Area 220 watts	\$17.38	
24,000	101	Area 280 watts	\$20.09	
43,000	151	Area 420 watts	\$44.53	

- (1) Closed to new installations on or after July 1, 2005.
- (2) Closed to new installations on or after February 18, 1987.
- (3) Closed to new installations on or after November 18, 1991.
- (4) Closed to new installations on or after January 17, 1975.
- (5) Closed to new installations on or after June 30, 1972.
- (6) Closed to new contracts on or after October 1, 2007 for luminaires installed before January 1, 2008.
- (7) Light Emitting Diode (LED) luminaires are only available as replacements for failed mercury vapor luminaires and for customer requested replacements of existing mercury vapor luminaires, provided the fixture will accommodate an LED luminaire as a replacement. LED luminaires are not available as replacements for High Pressure Sodium Vapor or Metal Halide luminaires.

SCHEDULE PL (SC) STREET AND PUBLIC LIGHTING SERVICE

** Metal halide luminaires are no longer available for new installations. Upon failure of the luminaire or ballast, the luminaire will be replaced at no charge with a similar style LED luminaire and the monthly rate for the new luminaire will apply. If the existing metal halide luminaire is nonstandard or decorative and a comparable LED luminaire is not available, the Company will replace it at no charge with another available luminaire and the monthly rate for the new luminaire will apply. Customer requested replacements of metal halide luminaires prior to failure are subject to a transition fee as provided for under paragraph D below.

*** Mercury vapor luminaires are no longer available and will not be repaired if they fail. Upon failure the Company will convert any standard luminaire to an LED luminaire of similar size and lumen output. If the existing mercury vapor fixture is nonstandard and a comparable LED luminaire is not available, the Company will replace it with another available luminaire.

(B) Other Luminaires

Decorative and non-standard luminaires can be installed on request, at the Company's option, at the rate in (A) above plus an extra monthly charge equal to 1.7% of the estimated installed cost difference between the luminaire and structure requested, and, the equivalent luminaire and standard pole.

(C) Underground Charges

(1) Additional monthly charge for the underground conductor system:

<u>Feet Per Pole</u>	<u>From Overhead System</u>	<u>From Underground System</u>
0 – 100 feet	\$.50	\$.35
101 – 200 feet	\$.90	\$.75
Over 200 feet	\$.90 plus \$.07 for each increment of 10 feet, or less, over 200 feet	\$.75 plus \$.07 for each increment of 10 feet, or less, over 200 feet

(2) When the installation requires the cutting and replacing of pavement of more than one drive or one walkway per luminaire, 1.7% of the estimated cost of this cutting and replacing of pavement will be added to the monthly charges above.

(3) When an installation is in an area served by a concrete-encased duct system, additional charges stated above will not apply and, instead, the additional monthly charge will be 1.7% of the estimated cost of the underground conductor system.

(D) Transition Fees for Change out of High Pressure Sodium and Metal Halide Luminaires to LEDs

Upon customer request, the Company will replace a High Pressure Sodium or Metal Halide Luminaire with an LED luminaire upon payment to the Company, in advance, a transition fee as follows:

- (1) For luminaires billed under paragraph (A) above, the fee shall be \$50.00 for each such luminaire replaced.
- (2) For luminaires billed under paragraph (B) above, the fee shall be calculated on a per luminaire basis as the loss due to early retirement of the luminaire being replaced.
- (3) Customers will not be charged a transition fee for metal halide luminaires that are replaced due to failure of the ballast or luminaire.

RIDERS

The following Riders are applicable to service supplied under this schedule. The currently approved cents/kWh rider increment or decrement must be added to the rates shown above to determine the monthly bill.

Leaf No. 62 Energy Efficiency Rider

ADJUSTMENTS FOR FUEL, VARIABLE ENVIRONMENTAL, AVOIDED CAPACITY AND DISTRIBUTED ENERGY RESOURCE PROGRAM COSTS

The cost of fuel, the variable environmental cost, avoided capacity cost of the Public Utilities Regulatory Policies Act of 1978 ("PURPA") purchased power, and Distributed Energy Resource Program ("DERP") cost is incorporated as a part of, and will apply to all service supplied under, this Schedule.

EXPLANATORY NOTES AND OTHER CHARGES

South Carolina Forty-Ninth Revised Leaf No. 34
Effective for bills rendered on and after the first billing cycle in _____
PSCSC Docket No. , Order No. _____

SCHEDULE PL (SC) STREET AND PUBLIC LIGHTING SERVICE

- (1) The installation of bracket-mounted luminaires in (A) above includes the Company's 40-foot, standard wood poles.
 - (a) Wood poles longer than 40 feet, or structures other than standard wood poles, may be installed for an extra monthly charge equal 1.7% of the estimated installed cost difference between the luminaires and structures requested, and equivalent luminaires and standard poles, and such extra charge shall not be less than \$5.35 per month, per pole or other structure.
 - (b) The Company's standard metal street lighting pole may be installed for an extra monthly charge of \$5.35 per month, per pole.
 - (c) The Company's standard metal mast-arm pole may be installed for an extra monthly charge of \$5.35 plus 1.7% of the estimated installed cost difference between the requested pole and the Company's standard metal street lighting pole, per month, per pole. The standard metal mast-arm pole may be installed without a luminaire for a monthly charge of \$7.10 plus 1.7% of the estimated installed cost difference between the requested pole and the Company's standard metal street lighting pole.
 - (d) Standard wood poles and guys may be provided at the same charges as in (3) below when provided solely to support traffic signals.
- (2) Service using overhead conductors is not available in any area designated by the Company as underground distribution area, nor in any area, location, or premises being served from an underground source. There will be no extra charge for underground conductors to luminaires installed in areas where the Company at its own option has determined that underground distribution facilities should be installed.
- (3) For areas outside municipal limits: Location of the luminaire or luminaires in areas outside of municipal limits shall be designated by the Customer but the location must be within the distance which can be reached by a secondary extension from the Company's nearest distribution facilities. Should the number of poles in the secondary extension required to serve the luminaire(s) exceed the number of poles on which bracket-mounted luminaires are installed, a monthly charge of \$1.75 per pole shall be made for such excess number of poles. Should the installation include downguys or spanguys, a charge of \$.60 per month per guy shall be made. When the installation requested requires a primary extension solely to serve the luminaires, an additional monthly charge of 1.7% of the estimated cost of the primary extension will be made.
- (4) All facilities necessary for service under this Schedule, including fixtures, lamps, controls, poles, hardware, transformers, conductors, and other appurtenances shall be owned and maintained by the Company.
- (5) Color-improved lamps installed prior to October 1, 2007 are supplied for an extra charge of \$.70 per lamp per month. For luminaires installed prior to October 1, 2007 there will be no additional charge for color-improved lamps installed as replacements for clear mercury vapor luminaires, nor for color improved lamps installed in new luminaires on or after October 1, 2007.
- (6) When two or more luminaires are installed on the same pole or other structure, the applicable monthly charges for each luminaire other than the first will be reduced \$1.75.
- (7) "Suburban" luminaires are defined as standard NEMA-style fixtures with refractors and vertical-burning lamps. "Urban" luminaires are defined as "cobra-style" fixtures with enclosed refractive or flat lenses and horizontal-burning lamps.

SALES TAX AND MUNICIPAL FEES

Any applicable sales tax, municipal service agreement fee, business license fee or other fee assessed by or remitted to a state or local governmental authority will be added to the charges determined above.

PAYMENT

Bills under this Schedule are due and payable on the date of the bill at the office of the Company. Bills are past due and delinquent on the fifteenth day after the date of the bill. If any bill is not so paid, the Company has the right to suspend service. In addition, all bills not paid by the twenty-fifth day after the date of the bill shall be subject to a one and one-half percent (1 1/2%) late payment charge on the unpaid amount. This late payment charge shall be rendered on the following month's bill and it shall become part of, and be due and payable with, the bill on which it is rendered.

CONTRACT PERIOD

The original term of contract may be from a minimum of three (3) years to a maximum of ten (10) years. Contracts will continue after the original term until terminated by either party on thirty days' written notice. The Customer may amend or terminate the Agreement before the expiration of the initial Contract Period by paying to the Company a sum of money equal to 40% of the

South Carolina Forty-Ninth Revised Leaf No. 34

Effective for bills rendered on and after the first billing cycle in _____

PSCSC Docket No. , Order No. _____

SCHEDULE PL (SC)
STREET AND PUBLIC LIGHTING SERVICE

monthly bills which otherwise would have been rendered for the remaining term of the initial Contract Period, less the monthly bills for the initial term of contract of any successor customer who has applied for lighting service at the premises prior to the effective date of the contract amendment or termination, provided, however, this amount shall not be less than zero. The Company may require a deposit not to exceed 40% of the revenue for the original term. The deposit will be returned at the end of the original term, provided the Customer has met all provisions of the contract. Minimum term of contract for specific situations shall be:

- (a) Three (3) years for all luminaires designated as standard by the Company and bracket-mounted on standard poles.
- (b) Ten (10) years for all luminaires designated as decorative or nonstandard by the Company, and for all standard luminaires mounted on supports other than standard wood poles, and for primary extensions solely serving the luminaires.

SCHEDULE GL (SC)
GOVERNMENTAL LIGHTING SERVICEAVAILABILITY (South Carolina Only)

Available for all-night outdoor lighting service to Municipal, County State, and Federal Governments solely for the purpose of lighting public streets, highways, and other public places. All facilities necessary for service under this Schedule, including fixtures, lamps, controls, poles, hardware, transformers, conductors, and other appurtenances shall be owned and maintained by the Company. Service using overhead conductors is not available in any area designated by the Company as underground distribution area, nor in any area, location, or premises being served from an underground source. This Schedule is not available for service to non-governmental entities. This Schedule is not available for seasonal or other part-time operation of outdoor luminaires.

RATE:(A) Bracket-Mounted Luminaires

All-night street lighting service using overhead conductors and Company standard equipment mounted on standard wood poles. "Urban" luminaires are defined as "cobra-style" fixtures with enclosed refractive or flat lenses and horizontal-burning lamps. "Existing Pole" is defined as a pole utilized for distribution facilities and not solely to support the luminaire.

<u>Lamp Rating</u>		<u>Per Month Per Luminaire*</u>				
<u>Lumens</u>	<u>kWh Per Month</u>	<u>Style</u>	<u>Existing Pole (1)</u> * Minus 0.3754 cents/kWh	<u>New Pole</u> * Minus 0.3754 cents/kWh	<u>New Pole Served</u> <u>Underground</u> * Minus 0.3754 cents/kWh	
High Pressure Sodium Vapor						
9,500	47	Urban	\$ 9.27	\$ 15.90	\$ 20.60	
16,000	70	Urban	\$ 9.71	\$ 16.35	\$ 21.05	
27,500	104	Urban	\$ 11.42	\$ 18.06	\$ 22.75	
50,000	156	Urban	\$ 13.58	\$ 20.22	\$ 24.92	
Metal Halide**						
9,000	43	Urban	\$ 10.85	\$ 17.48	\$ 22.18	
40,000	155	Urban	\$ 16.67	\$ 23.30	\$ 28.00	
78,000	295	Area	\$ 39.51	\$ 46.15	\$ 50.85	
Light Emitting Diode (2)						
4,500	18	Area	50 watts	\$10.03	\$ 16.67	\$ 21.37
6,500	25	Area	70 watts	\$10.19	\$ 16.83	\$ 21.53
9,500	40	Area	110 watts	\$12.90	\$ 19.54	\$ 24.24
12,500	54	Area	150 watts	\$14.59	\$ 21.23	\$ 25.93
18,500	79	Area	220 watts	\$17.38	\$ 24.02	\$ 28.72
24,000	101	Area	280 watts	\$20.09	\$ 26.73	\$ 31.43
43,000	151	Area	420 watts	\$44.53	\$51.17	\$55.87

- (1) The "Existing Pole" rate is applicable to a luminaire installed on a pole which does not solely support the luminaire, or for an additional luminaire on the same pole as another luminaire.
- (2) Light Emitting Diode (LED) luminaires are available only for new installations after June 18, 2014 and are not available as replacements for High Pressure Sodium Vapor or Metal Halide luminaires except as provided for under paragraph D below.

** Metal halide luminaires are no longer available for new installations. Upon failure of the luminaire or ballast, the luminaire will be replaced at no charge with a similar style LED luminaire and the monthly rate for the new luminaire will apply. If the existing metal halide luminaire is nonstandard or decorative and a comparable LED luminaire is not available, the Company will replace it at no charge with another available luminaire and the monthly rate for the new luminaire will apply. Customer requested replacements of metal halide luminaires prior to failure are subject to a transition fee as provided for under paragraph D below.

(B) Other Luminaires

Decorative and non-standard luminaires can be installed on request, at the Company's option, at the rate in (A) above plus an extra monthly charge equal to 1.7% of the estimated difference in cost installed between the luminaire and structure requested and the equivalent luminaire and wood pole in (A) above.

(C) Underground Charges

- (1) Additional monthly charge for the underground conductor system:
\$.07 for each increment of 10 feet, or less, over 150 feet per pole.

South Carolina Sixteenth Leaf No. 33

Effective for bills rendered on and after the first billing cycle in _____

PSCSC Docket No. , Order No. _____

SCHEDULE GL (SC)
GOVERNMENTAL LIGHTING SERVICE

- (2) When the installation requires the cutting and replacing of pavement, 1.7% of the estimated cost of this cutting and replacing of pavement will be added to the charges above.
- (3) When an installation is in an area served by a concrete-encased duct system, additional charges stated above will not apply and, instead, the additional monthly charge will be 1.7% of the estimated cost of the underground conductor system.
- (4) An underground conductor system, up to 150 feet per pole, can be installed to an existing pole under the "Existing Pole" rate in (A) above, for an additional monthly charge of \$4.70 per pole. For installations over 150 feet per pole, the charges under (C) (1) above will apply in addition to the \$4.70 charge.
- (5)

(D) Transition Fees for Change out of High Pressure Sodium and Metal Halide Luminaires to LEDs

Upon request, the Company will replace a High Pressure Sodium or Metal Halide Luminaire with an LED luminaire upon payment to the Company, in advance, a transition fee as follows:

- (1) For luminaires billed under paragraph (A) above, the fee shall be \$50.00 for each such luminaire replaced.
- (2) For luminaires billed under paragraph (B) above, the fee shall be calculated on a per luminaire basis as the loss due to early retirement of the luminaire being replaced.
- (3) Customers will not be charged a transition fee for metal halide luminaires that are replaced due to failure of the ballast or luminaire.

(E) Other Charges

- (1) Wood poles longer than 40 feet may be installed for an extra monthly charge equal to 1.7% of the estimated installed cost difference between the standard wood pole and the pole requested. Other structures may be installed without a luminaire for a monthly charge of \$6.49 plus 1.7% of the estimated cost difference between the structure and the standard wood pole.
- (2) Standard wood poles may be provided for \$6.63 per pole per month when provided solely to support traffic signals.
- (3) Brackets longer than 12 feet, but not longer than 20 feet can be installed for an additional monthly charge of \$4.50.
- (4) Should the number of poles in the secondary extension required to serve the luminaire(s) exceed the number of poles on which bracket-mounted luminaires are installed, a monthly charge of \$6.63 per pole shall be made for such excess number of poles.
- (5) When the installation requested requires a primary extension solely to serve the luminaires, an additional monthly charge of 1.7% of the estimated cost of the primary extension will be made.

RIDERS

The following Riders are applicable to service supplied under this schedule. The currently approved cents/kWh rider increment or decrement must be added to the rates shown above to determine the monthly bill.

Leaf No. 62 Energy Efficiency Rider

ADJUSTMENTS FOR FUEL, VARIABLE ENVIRONMENTAL, AVOIDED CAPACITY AND DISTRIBUTED ENERGY RESOURCE PROGRAM COSTS

The cost of fuel, the variable environmental cost, avoided capacity cost of the Public Utilities Regulatory Policies Act of 1978 ("PURPA") purchased power, and Distributed Energy Resource Program ("DERP") cost is incorporated as a part of, and will apply to all service supplied under, this Schedule.

SALES TAX AND MUNICIPAL FEES

Any applicable sales tax, municipal service agreement fee, business license fee or other fee assessed by or remitted to a state or local governmental authority will be added to the charges determined.

PAYMENT

Bills under this Schedule are due and payable on the date of the bill at the office of the Company. Bills are past due and delinquent on the fifteenth day after the date of the bill. In addition, all bills not paid by the twenty-fifth day after the date of the bill shall be subject to a one and one-half percent (1 1/2%) late payment charge on the unpaid amount. This late payment charge shall be rendered on the following month's bill and it shall become part of and be due and payable with the bill on which it is rendered.

CONTRACT PERIOD

The original term of contract may be from a minimum of three (3) years to a maximum of ten (10) years. Contracts will continue after the original term until terminated by either party on thirty days' written notice. The Customer may amend or terminate the Agreement before the expiration of the initial Contract Period by paying to the Company a sum of money equal to 40% of the

SCHEDULE GL (SC)
GOVERNMENTAL LIGHTING SERVICE

monthly bills which otherwise would have been rendered for the remaining term of the initial Contract Period, less the monthly bills for the initial term of contract of any successor customer who has applied for lighting service at the premises prior to the effective date of the contract amendment or termination, provided, however, this amount shall not be less than zero. The Company may require a deposit not to exceed 40% of the revenue for the original term. The deposit will be returned at the end of the original term, provided the Customer has met all provisions of the contract. Minimum term of contract for specific situations shall be:

- (a) Three (3) years for all luminaires designated as standard by the Company.
- (b) Ten (10) years for all luminaires designated as decorative or nonstandard or when a primary extension is required solely to serve the luminaires.

SCHEDULE FL (SC)
FLOODLIGHTING SERVICEAVAILABILITY (South Carolina Only)

Available to the individual customer at locations on the Company's distribution system which, in the Company's opinion, permit the use of bucket-type equipment for installation and servicing of facilities. Service under this Schedule may be withheld or discontinued at the option of the Company.

RATE:(A) Bracket-Mounted Luminaires

All-night outdoor lighting service using Company standard equipment mounted on standard poles:

<u>Lamp Rating</u>		<u>Per Month Per Luminaire*</u>			
<u>Lumens</u>	<u>kWh Per Month</u>	<u>Style</u>	<u>Existing Pole (1)</u> * Minus 0.3754 cents/kWh	<u>New Pole</u> * Minus 0.3754 cents/kWh	<u>New Pole Served Underground</u> * Minus 0.3754 cents/kWh
High Pressure Sodium Vapor					
16,000	70	Floodlight	\$ 11.98	\$ 20.72	\$ 25.45
27,500	104	Floodlight	\$ 14.08	\$ 22.83	\$ 27.55
50,000	156	Floodlight	\$ 15.57	\$ 24.33	\$ 29.04
Metal Halide**					
40,000	155	Floodlight	\$ 18.84	\$ 27.57	\$ 32.30
LED					
41,500	47	Floodlight (130W)	\$16.75	\$25.50	\$30.22
110,000	95	Floodlight (260W)	\$33.44	\$42.19	\$46.91

- (1) The "Existing Pole" rate is applicable to installations, including pole, installed prior to November 18, 1991. After November 18, 1991, the "Existing Pole" rate is available only for luminaires attached to poles which are not installed solely to support the luminaire.

**Metal halide luminaires are no longer available for new installations. Upon failure of the luminaire or ballast, the luminaire will be replaced at no charge with a similar style LED luminaire and the monthly rate for the new luminaire will apply. If the existing metal halide luminaire is nonstandard or decorative and a comparable LED luminaire is not available, the Company will replace it at no charge with another available luminaire and the monthly rate for the new luminaire will apply. Customer requested replacements of metal halide luminaires prior to failure are subject to a transition fee as provided for under paragraph D below.

(B) Other Luminaires

Decorative and non-standard luminaires can be installed on request, at the Company's option, at the rate in (A) above plus an extra monthly charge equal to 1.7% of the estimated installed cost difference between the luminaire and structure requested, and, the equivalent luminaire and standard pole.

(C) Underground Charges

- (1) Additional monthly charge for the underground conductor system.
\$.07 for each increment of 10 feet, or less, over 150 feet per pole.
- (2) When the installation requires the cutting and replacing of pavement, 1.7% of the estimated cost of this cutting and replacing of pavement will be added to the monthly charges above.
- (3) When an installation is in an area served by a concrete-encased duct system, additional charges stated above will not apply and, instead, the additional monthly charge will be 1.7% of the estimated cost of the underground conductor.
- (4) An underground conductor system, up to 150 feet per pole, can be installed to an existing pole under the "Existing Pole" rate in (A) above, for an additional monthly charge of \$4.70 per pole. For installations over 150 feet per pole, the charges under (B) (1) above will apply in addition to the \$4.70 charge.

(D) Transition Fees for Change out of High Pressure Sodium and Metal Halide Luminaires to LEDs

South Carolina Forty-Ninth Revised Leaf No. 30
Effective for bills rendered on and after the first billing cycle in _____
PSCSC Docket No. , Order No. _____

SCHEDULE FL (SC)
FLOODLIGHTING SERVICE

Upon customer request, the Company will replace High Pressure Sodium or Metal Halide luminaires with standard LED luminaires served on a standard pole on Schedule FL, Schedule OL or Schedule GL, whichever is applicable, upon payment to the Company, in advance, of \$127.00 for each such luminaire replaced. . Customers will not be charged a transition fee for metal halide luminaires that are replaced due to failure of the ballast or luminaire.

RIDERS

The following Riders are applicable to service supplied under this schedule. The currently approved cents/kWh rider increment or decrement must be added to the rates shown above to determine the monthly bill.

Leaf No. 62 Energy Efficiency Rider

ADJUSTMENTS FOR FUEL, VARIABLE ENVIRONMENTAL, AVOIDED CAPACITY AND DISTRIBUTED ENERGY RESOURCE PROGRAM COSTS

The cost of fuel, the variable environmental cost, avoided capacity cost of the Public Utilities Regulatory Policies Act of 1978 ("PURPA") purchased power, and Distributed Energy Resource Program ("DERP") cost is incorporated as a part of, and will apply to all service supplied under, this Schedule.

EXPLANATORY NOTES AND OTHER CHARGES

- (1) Lamps will burn from approximately one half-hour after sunset until approximately one half-hour before sunrise. The Company will readily replace burned-out lamps and otherwise maintain the luminaires during regular daytime working hours following notification by the Customer.
- (2) Luminaires will be installed only on Company-owned poles, and all facilities necessary for service under this Schedule, including fixtures, lamps, controls, poles, hardware, transformers, conductors, and other appurtenances shall be owned and maintained by the Company.
- (3) Equipment (such as disconnecting switches) not supplied by the Company as standard is not available under this Schedule, and shall not be installed by the Customer.
- (4) This Schedule is not available for seasonal or other part-time operation of outdoor luminaires.
- (5) Service using overhead conductors is not available in any area designated by the Company as underground distribution area, nor in any area, location, or premises being served from an underground source.
- (6) Where two or more luminaires were installed for service before November 18, 1991 on the same pole or other structure, the applicable monthly charges for each luminaire other than the first will be reduced \$1.75.
- (7) Wood poles longer than 40 feet or structures other than standard wood poles may be installed for an extra monthly charge equal to 1.7% of the estimated installed cost difference between the requested pole or structure and a standard wood pole, but not less than \$5.35 per month per pole or structure.
- (8) Luminaire locations shall be designated by the Customer, and where only an extension of secondary facilities is required from the nearest distribution source, the rate per luminaire in (A) above shall apply. When the number of required poles exceeds the number of luminaires requested, a monthly charge not less than \$1.75 per standard wood pole shall be made for luminaires installed for service before November 18, 1991. A monthly charge not less than \$6.63 per standard pole shall be made for luminaires installed for service after November 18, 1991. When any installation requires an extension of primary facilities solely to serve the luminaires, an additional monthly charge equal to 1.7% of the estimated cost of the primary extension shall be made. Should any installation require guying of secondary facilities, a charge of 60 cents per month per guy shall be made.

SALES TAX AND MUNICIPAL FEES

Any applicable sales tax, municipal service agreement fee, business license fee or other fee assessed by or remitted to a state or local governmental authority will be added to the charges determined above.

PAYMENT

Bills under this Schedule are due and payable on the date of the bill at the office of the Company. Bills are past due and delinquent on the fifteenth day after the date of the bill. If any bill is not so paid, the Company has the right to suspend service. In addition, all bills not paid by the twenty-fifth day after the date of the bill shall be subject to a one and one-half percent (1 1/2%) late payment charge on the unpaid amount. This late payment charge shall be rendered on the following month's bill and it shall become part of, and be due and payable with, the bill on which it is rendered.

Duke Energy Carolinas, LLC

Electricity No. 4
South Carolina Forty-Ninth Revised Leaf No. 30
Superseding South Carolina Forty-Eighth Revised Leaf No. 30SCHEDULE FL (SC)
FLOODLIGHTING SERVICECONTRACT PERIOD

The original term of contract may be from a minimum of three (3) years to a maximum of ten (10) years. Contracts will continue after the original term until terminated by either party on thirty days' written notice. The Customer may amend or terminate the Agreement before the expiration of the initial Contract Period by paying to the Company a sum of money equal to 40% of the monthly bills which otherwise would have been rendered for the remaining term of the initial Contract Period, less the monthly bills for the initial term of contract of any successor customer who has applied for lighting service at the premises prior to the effective date of the contract amendment or termination, provided, however, this amount shall not be less than zero. The Company may require a deposit not to exceed 40% of the revenue for the original term. The deposit will be returned at the end of the original term, provided the Customer has met all provisions of the contract. Minimum term of contract for specific situations shall be:

- (a) Three years for all luminaires designated by the Company as standard and bracket-mounted on standard poles.
- (b) Ten years for all luminaires designated by the Company as decorative or nonstandard, and for all standard luminaires mounted on supports other than standard wood poles, or other non-standard supports, and for primary extensions solely serving the luminaires.